Application of Leonard et al.; Ser. No. 10/762,066; Filed 1/20/2004
Reply to Office Action dated 7/10/2006
Docket No.: 15437-0598

AMENDMENTS TO THE CLAIMS

1   1.   (currently amended) A machine-implemented method, comprising:

2   receiving one or more key values from a first process that executes in a first virtual

3   operating system environment (VOSE) of a plurality of VOSEs controlled by a

4   single operating system kernel instance;

5   selecting, from a plurality of statistical data structures, a set of one or more statistical

6   data structures that are associated with each identified by the one or more key

7   values;

8   determining whether any statistical data structure of the in the set of one or more

9   statistical data structures is associated with [[a]] the first VOSE, in which the

10   first process executes; and

11   if a particular statistical data structure of the in the set of one or more statistical data

12   structures is associated with [[a]] the first VOSE in which the first process

13   executes, then sending, to the first process, statistical data that is stored in the

14   particular statistical data structure that is associated with the first VOSE;

15   wherein the statistical data that is sent to the first process comprises statistics that

16   indicate information about prior usage of a specific system resource with

17   which the particular statistical data structure is associated.

1   2.   (currently amended) The method of claim 1, further comprising:

2   if no statistical data structure of the in the set of one or more statistical data structures

3   is associated with a VOSE in which the first process executes, then preventing

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4   statistical data that is stored in <u>any of the</u> ~~statistical data structures in the set of~~

5   one or more statistical data structures from being sent to the first process.

1 3. (original) The method of claim 1, further comprising:

2   receiving, from a second process, a request to mount a file system;

3   in response to receiving the request, performing steps comprising:

4   mounting the file system, thereby producing a mount;

5   establishing an association between the mount and the particular statistical

6   data structure;

7   determining in which VOSE of the plurality of VOSEs the second process

8   executes; and

9   establishing an association between the particular statistical data structure and

10   a VOSE in which the second process executes.

1 4. (original) The method of claim 1, further comprising:

2   establishing an association between a central processing unit (CPU) and the particular

3   statistical data structure;

4   establishing an association between the CPU and a resource pool;

5   receiving, from a second process, a request to bind a particular VOSE to the resource

6   pool; and

7   in response to receiving the request, establishing an association between the particular

8   statistical data structure and the particular VOSE.

1 5. (currently amended) The method of claim 1, further comprising:

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2   receiving the one or more key values from a second process that executes in a global

3   operating system environment (OSE) that comprises the plurality of VOSEs;

4   determining whether any statistical data structure <u>of the</u> ~~in the set of~~ one or more

5   statistical data structures is associated with the global OSE; and

6   if the particular statistical data structure is associated with the global OSE, then

7   sending, to the second process, statistical data that is stored in the particular

8   statistical data structure.

1   6.   (currently amended) The method of claim 1, further comprising:

2   receiving the one or more key values from a second process that executes in a second

3   VOSE of the plurality of VOSEs;

4   determining whether any statistical data structure <u>of the</u> ~~in the set of~~ one or more

5   statistical data structures is associated with a VOSE in which the second

6   process executes; and

7   if the particular statistical data structure is associated with a VOSE in which the

8   second process executes, then sending, to the second process, statistical data

9   that is stored in the particular statistical data structure<u>;</u>

10   <u>wherein the second process is separate from the first process; and</u>

11   <u>wherein the second VOSE is separate from the first VOSE.</u>

1   7.   (original) The method of claim 1, further comprising:

2   receiving a request to create a second VOSE within the plurality of VOSEs;

3   in response to receiving the request to create the second VOSE, creating a second

4   statistical data structure; and

5   establishing an association between the second statistical data structure and a first set

6   of key values that typically are associated with a statistical data structure in a

7   non-partitioned OSE;

8   wherein all statistical data requests that are (a) received by processes executing within

9   the second VOSE and (b) for statistical data that is associated with the first set

10   of key values cause the operating system kernel instance to return statistical

11   data that pertains only to the second VOSE.

1   8.   (original) The method of claim 7, further comprising:

2   receiving a request to create a third VOSE within the plurality of VOSEs;

3   in response to receiving the request to create the third VOSE, creating a third

4   statistical data structure; and

5   establishing an association between the third statistical data structure and a third set of

6   key values that typically are associated with a statistical data structure in a

7   non-partitioned OSE;

8   wherein all statistical data requests that are (a) received by processes executing within

9   the third VOSE and (b) for statistical data that is associated with the second

10   set of key values cause the operating system kernel instance to return

11   statistical data that pertains only to the third VOSE;

12   wherein the third VOSE is separate from the second VOSE; and

13   wherein the third statistical data structure is separate from the second statistical data

14   structure.

1   9.   (original) A machine-implemented method, comprising:

2   receiving, from a process that executes in a first virtual operating system environment

3   (VOSE) of a plurality of VOSEs controlled by a single operating system

4   kernel instance, a request for a list of statistical data structures;

5   determining in which VOSE of the plurality of VOSEs the process executes;

6   selecting, from a plurality of statistical data structures, a set of one or more statistical

7   data structures that are associated with a VOSE in which the process executes;

8   and

9   sending, to the process, a list of statistical data structures that are in the set of one or

10   more statistical data structures.

1   10.   (currently amended) A machine-readable medium, comprising:

2   instructions for causing one or more processors to receive one or more key values

3   from a first process that executes in a first virtual operating system

4   environment (VOSE) of a plurality of VOSEs controlled by a single operating

5   system kernel instance;

6   instructions for causing one or more processors to select, from a plurality of statistical

7   data structures, a~set~of~one or more statistical data structures that are

8   associated~with each identified by the one or more key values;

9   instructions for causing one or more processors to determine whether any statistical

10   data structure of the ~~in the set of~~ one or more statistical data structures is

11   associated with [[a]] the first VOSE, in which the first process executes; and

12   instructions for causing one or more processors to send, to the first process, statistical

13   data that is stored in a particular statistical data structure of the ~~in the set of~~

14   one or more statistical data structures, if the particular statistical data structure

15   is associated with [[a]] the first VOSE ~~in which the first process executes~~;

16   <u>wherein the statistical data that is sent to the first process comprises statistics that</u>

17   <u>indicate information about prior usage of a specific system resource with</u>

18   <u>which the particular statistical data structure is associated.</u>

1   11.   (currently amended) The machine-readable medium of claim 10, further comprising:

2   instructions for causing one or more processors to prevent statistical data that is stored

3   in <u>any of the</u> ~~statistical data structures in the set of~~ one or more statistical data

4   structures from being sent to the first process if no statistical data structure <u>of</u>

5   <u>the</u> ~~in the set of~~ one or more statistical data structure is associated with a

6   VOSE in which the first process executes.

1   12.   (original) The machine-readable medium of claim 10, further comprising:

2   instructions for causing one or more processors to receive, from a second process, a

3   request to mount a file system;

4   instructions for causing one or more processors to execute, in response to receiving

5   the request, instructions comprising:

6   instructions for causing one or more processors to mount the file system,

7   thereby producing a mount;

8   instructions for causing one or more processors to establish an association

9   between the mount and the particular statistical data structure;

10   instructions for causing one or more processors to determine in which VOSE

11   of the plurality of VOSEs the second process executes; and

12   instructions for causing one or more processors to establish an association

13   between the particular statistical data structure and a VOSE in which

14   the second process executes.

1   13.   (original) The machine-readable medium of claim 10, further comprising:

2   instructions for causing one or more processors to establish an association between a

3   central processing unit (CPU) and the particular statistical data structure;

4   instructions for causing one or more processors to establish an association between

5   the CPU and a resource pool;

6   instructions for causing one or more processors to receive, from a second process, a

7   request to bind a particular VOSE to the resource pool; and

8   instructions for causing one or more processors to establish an association between

9   the particular statistical data structure and the particular VOSE.

1   14.   (currently amended) The machine-readable medium of claim 10, further comprising:

2   instructions for causing one or more processors to receive the one or more key values

3   from a second process that executes in a global operating system environment

4   (OSE) that comprises the plurality of VOSEs;

5   instructions for causing one or more processors to determine whether any statistical

6   data structure of the ~~in the set of~~ one or more statistical data structures is

7   associated with the global OSE; and

8   instructions for causing one or more processors to send, to the second process,

9   statistical data that is stored in the particular statistical data structure, if the

10   particular statistical data structure is associated with the global OSE.

1   15. (currently amended) The machine-readable medium of claim 10, further comprising:

2   instructions for causing one or more processors to receive the one or more key values

3   from a second process that executes in a second VOSE of the plurality of

4   VOSEs;

5   instructions for causing one or more processors to determine whether any statistical

6   data structure of the ~~in the set of~~ one or more statistical data structures is

7   associated with a VOSE in which the second process executes; and

8   instructions for causing one or more processors to send, to the second process,

9   statistical data that is stored in the particular statistical data structure, if the

10   particular statistical data structure is associated with a VOSE in which the

11   second process executes;

12   wherein the second process is separate from the first process; and

13   wherein the second VOSE is separate from the first VOSE.

1 16. (original) The machine-readable medium of claim 10, further comprising:

2   instructions for causing one or more processors to receive a request to create a second

3   VOSE within the plurality of VOSEs;

4   instructions for causing one or more processors to create a second statistical data

5   structure in response to receiving the request to create the second VOSE; and

6   instructions for causing one or more processors to establish an association between

7   the second statistical data structure and a first set of key values that typically

8   are associated with a statistical data structure in a non-partitioned OSE;

9   wherein all statistical data requests that are (a) received by processes executing within

10   the second VOSE and (b) for statistical data that is associated with the first set

11   of key values cause the operating system kernel instance to return statistical

12   data that pertains only to the second VOSE.

1 17. (original) The machine-readable medium of claim 16, further comprising:

2   instructions for causing one or more processors to receive a request to create a third

3   VOSE within the plurality of VOSEs;

4   instructions for causing one or more processors to create a third statistical data

5   structure in response to receiving the request to create the third VOSE; and

6   instructions for causing one or more processors to establish an association between

7   the third statistical data structure and a third set of key values that typically are

8   associated with a statistical data structure in a non-partitioned OSE;

9   wherein all statistical data requests that are (a) received by processes executing within

10   the third VOSE and (b) for statistical data that is associated with the second

11   set of key values cause the operating system kernel instance to return

12   statistical data that pertains only to the third VOSE;

13   wherein the third VOSE is separate from the second VOSE; and

14   wherein the third statistical data structure is separate from the second statistical data

15   structure.

1   18. (original) A machine-readable medium, comprising:

2   ·   instructions for causing one or more processors to receive, from a process that

3   executes in a first virtual operating system environment (VOSE) of a plurality

4   of VOSEs controlled by a single operating system kernel instance, a request

5   for a list of statistical data structures;

6   instructions for causing one or more processors to determine in which VOSE of the

7   plurality of VOSEs the process executes;

8   instructions for causing one or more processors to select, from a plurality of statistical

9   data structures, a set of one or more statistical data structures that are

10   associated with a VOSE in which the process executes; and

11   instructions for causing one or more processors to send, to the process, a list of

12   statistical data structures that are in the set of one or more statistical data

13   structures.

1   19. (currently amended) An apparatus, comprising:

2   a mechanism for receiving one or more key values from a first process that executes

3   in a first virtual operating system environment (VOSE) of a plurality of

4   VOSEs controlled by a single operating system kernel instance;

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5   a mechanism for selecting, from a plurality of statistical data structures, ~~a set of~~ one or

6   more statistical data structures that are ~~associated with~~ <u>each identified by</u> the

7   one or more key values;

8   a mechanism for determining whether any statistical data structure <u>of the</u> ~~in the set of~~

9   one or more statistical data structures is associated with [[a]] <u>the first</u> VOSE<u>,</u>

10   in which the first process executes; and

11   a mechanism for sending, to the first process, statistical data that is stored in a

12   particular statistical data structure <u>of the</u> ~~in the set of~~ one or more statistical

13   data structures, if the particular statistical data structure is associated with [[a]]

14   <u>the first</u> VOSE ~~in which the first process executes~~<u>;</u>

15   <u>wherein the statistical data that is sent to the first process comprises statistics that</u>

16   <u>indicate information about prior usage of a specific system resource with</u>

17   <u>which the particular statistical data structure is associated.</u>

1   20.   (currently amended) The apparatus of claim 19, further comprising:

2   a mechanism for preventing statistical data that is stored in <u>any of the</u> ~~statistical data~~

3   ~~structures in the set of~~ one or more statistical data structures from being sent to

4   the first process if no statistical data structure <u>of the</u> ~~in the set of~~ one or more

5   statistical data structures is associated with a VOSE in which the first process

6   executes.

1   21.   (original) The apparatus of claim 19, further comprising:

2   a mechanism for receiving, from a second process, a request to mount a file system;

3   a mechanism for performing, in response to receiving the request, steps comprising:

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4   mounting the file system, thereby producing a mount;

5   establishing an association between the mount and the particular statistical

6   data structure;

7   determining in which VOSE of the plurality of VOSEs the second process

8   executes; and

9   establishing an association between the particular statistical data structure and

10   a VOSE in which the second process executes.

1   22.   (original) The apparatus of claim 19, further comprising:

2   a mechanism for establishing an association between a central processing unit (CPU)

3   and the particular statistical data structure;

4   a mechanism for establishing an association between the CPU and a resource pool;

5   a mechanism for receiving, from a second process, a request to bind a particular

6   VOSE to the resource pool; and

7   a mechanism for establishing an association between the particular statistical data

8   structure and the particular VOSE.

1   23.   (currently amended) The apparatus of claim 19, further comprising:

2   a mechanism for receiving the one or more key values from a second process that

3   executes in a global operating system environment (OSE) that comprises the

4   plurality of VOSEs;

5   a mechanism for determining whether any statistical data structure of the ~~in the set of~~

6   one or more statistical data structures is associated with the global OSE; and

7 a mechanism for sending, to the second process, statistical data that is stored in the

8 particular statistical data structure, if the particular statistical data structure is

9 associated with the global OSE.

1 24. (currently amended) The apparatus of claim 19, further comprising:

2 a mechanism for receiving the one or more key values from a second process that

3 executes in a second VOSE of the plurality of VOSEs;

4 a mechanism for determining whether any statistical data structure of the ~~in the set of~~

5 one or more statistical data structures is associated with a VOSE in which the

6 second process executes; and

7 a mechanism for sending, to the second process, statistical data that is stored in the

8 particular statistical data structure, if the particular statistical data structure is

9 associated with a VOSE in which the second process executes;

10 <u>wherein the second process is separate from the first process; and</u>

11 <u>wherein the second VOSE is separate from the first VOSE.</u>

1 25. (original) The apparatus of claim 19, further comprising:

2 a mechanism for receiving a request to create a second VOSE within the plurality of

3 VOSEs;

4 a mechanism for creating a second statistical data structure in response to receiving

5 the request to create the second VOSE; and

6 a mechanism for establishing an association between the second statistical data

7 structure and a first set of key values that typically are associated with a

8 statistical data structure in a non-partitioned OSE;

9   wherein all statistical data requests that are (a) received by processes executing within

10   the second VOSE and (b) for statistical data that is associated with the first set

11   of key values cause the operating system kernel instance to return statistical

12   data that pertains only to the second VOSE.

1   26.   (original) The apparatus of claim 25, further comprising:

2   a mechanism for receiving a request to create a third VOSE within the plurality of

3   VOSEs;

4   a mechanism for creating a third statistical data structure in response to receiving the

5   request to create the third VOSE; and

6   a mechanism for establishing an association between the third statistical data structure

7   and a third set of key values that typically are associated with a statistical data

8   structure in a non-partitioned OSE;

9   wherein all statistical data requests that are (a) received by processes executing within

10   the third VOSE and (b) for statistical data that is associated with the second

11   set of key values cause the operating system kernel instance to return

12   statistical data that pertains only to the third VOSE;

13   wherein the third VOSE is separate from the second VOSE; and

14   wherein the third statistical data structure is separate from the second statistical data

15   structure.

1   27.   (original) An apparatus, comprising:

2   a mechanism for receiving, from a process that executes in a first virtual operating

3   system environment (VOSE) of a plurality of VOSEs controlled by a single

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4   operating system kernel instance, a request for a list of statistical data

5   structures;

6   a mechanism for determining in which VOSE of the plurality of VOSEs the process

7   executes;

8   a mechanism for selecting, from a plurality of statistical data structures, a set of one or

9   more statistical data structures that are associated with a VOSE in which the

10   process executes; and

11   a mechanism for sending, to the process, a list of statistical data structures that are in

12   the set of one or more statistical data structures.

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